



ARCHAEOLOGICAL INVESTIGATIONS IN THE THELON GAME

SANCTUARY, CENTRAL BARRENLANDS

CANADA

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## Introduction:

During the summer of 1969, Ben Strickland of Montana found a number of quartzite artifacts coming out of a bank along the Clarke River in the Thelon Game Sanctuary. Subsequently he interested officials of Riveredge Foundation of Calgary in the archaeology of the area. In 1970 the Upper Thelon River Archaeological Project conducted extensive site survey in the Thelon Game Sanctuary supported as a Northwest Territories Centennial Project of Riveredge Foundation under the auspices of the University of Calgary. Further support in that year was supplied by the Canadian Forces 435 Squadron from Canadian Forces Station Edmonton who airdropped considerable supplies into this remote region.

In 1971 the Project was continued with the purpose of site testing and excavation. Again they were supported by Riveredge Foundation. In addition, support was given by the National Museum of Man, Archaeology Division, Ottawa and Opportunities for Youth.

## The Area:

The Thelon Game Sanctuary in the east-central Mackenzie and west-central Keewatin Districts, Northwest Territories, is a unique area of the Central Barren Grounds of Canada. Instituted primarily as a preserve for muskoxen, it has provided a haven for other arctic flora and fauna, and has remained fairly intact from the onslaught of explorations aimed at the economic improvement of the North. Archaeological sites has thus remained with minimal disturbance since the time when ancient hunters left them.

The topography is characterized by sand dunes, Pleistocene beach ridges and typical tundra vegetation as well as boreal forest type enclaves in the scattered spruce groves along the Thelon River.



### Archaeological Investigations:

In June and July 1970 extensive survey of the area was carried out to assess the potential of a heretofore archaeologically unknown region. Six stratified sites were included in the fifty-one sites found in 1970. Investigations in this season concentrated on surface collecting from larger surface sites using a polar coordinate technique for rapid recording of artifacts and their provenience. Almost a ton of artifacts and detritus was removed for future matrix ordering or multidimensional scaling using a computer. Due to air transportation costs for removing materials, a number of large sites were left undisturbed.

1971 field research concluded with an inventory of sixty-eight sites, including an additional stratified site (KjNb-20). KjNb-3, KjNb-5 and KjNb-20 were test-pitted; KkNa-8 and KjNb-11 were untouched due to distance from basecamp; and two, KjNb-6 and KjNb-7 were well-excavated. The remaining sites were surficial, containing several thousand artifacts and flaking stations (most collected in 1970). Artifact distributions in sites collected surficially by polar coordinate technique in 1970 will be compared by the matrix ordering or multidimensional scaling with buried materials from all sites excavated in 1971. Such ordering techniques in the main site, KjNb-6, both in the seven excavation floors and the large adjoining blowout area containing materials from all levels, may yield results in interpreting surficial materials from neighbouring sites in an attempt at deducing discrete components, site demography, material complexes, etc.

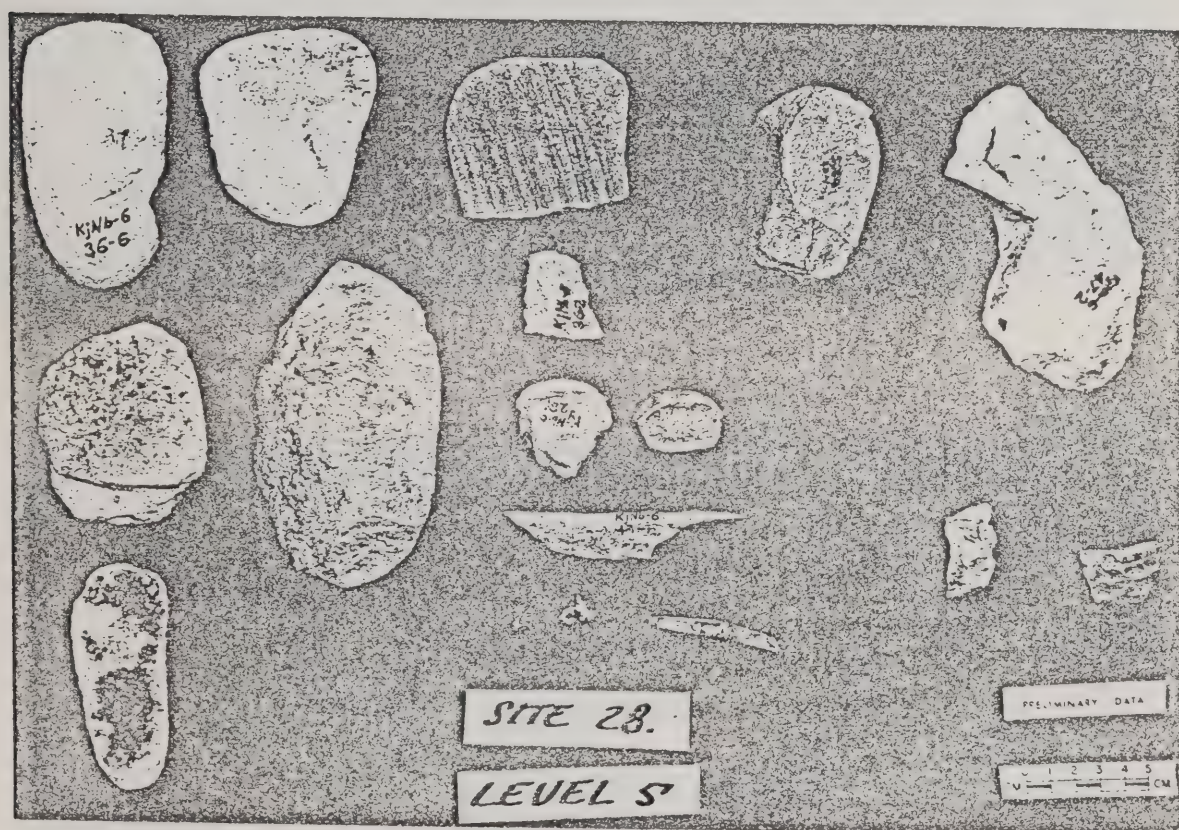
The three tested sites possessed two to three cultural levels, while sites KjNb-7 and KjNb-6 yielded five and seven levels separated by redeposited glacio-lacustrine sands. The preserved humus levels evident in all but the bottommost level were used for radiocarbon sampling in addition to vegetation and coprolite studies. Eleven radiocarbon samples have been dated, chiefly from KjNb-6. About ten more have not been returned from





samples of KJNb-6 , KJNb-7 and other locations. Preliminary observations of stratified levels from KJNb-6 and KJNb-7 are as follows:

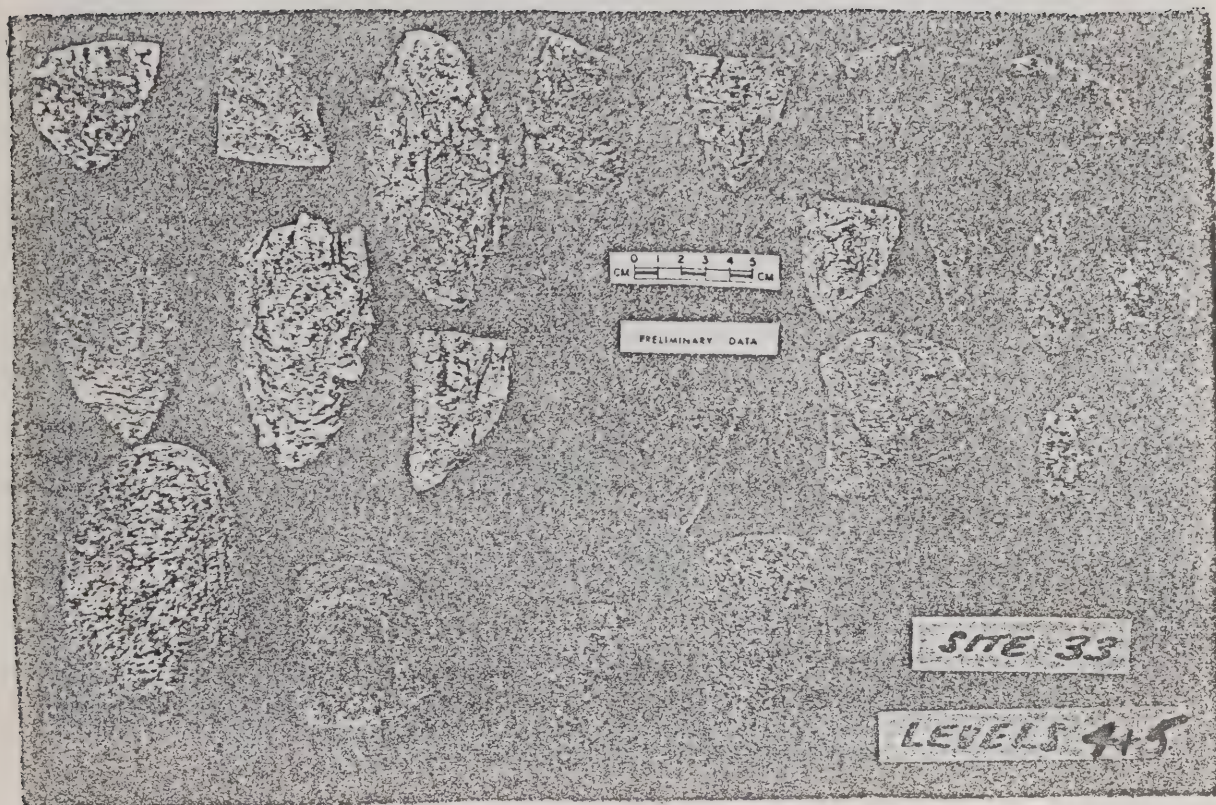
Level 5, the uppermost level dating about 200 to 300 years ago, contains fish-tailed, corner and side-notched projectile points; crude quartzite large tabular endscrapers, sandstone and quartzite tci-thos, siltstone and copper objects, the latter including a curved ribbonlike awl. A bone awl was also found. This material is interpreted as late prehistoric Chipewyan.



Level 4, dated at 500 B.P.  $\pm$  95 (I-5335) in KJNb-6, is very similar to Level 5, containing fish-tailed points and tci-thos. Well-made lanceolate, square based, and incipient stemmed points occur with bifacial knives and choppers.

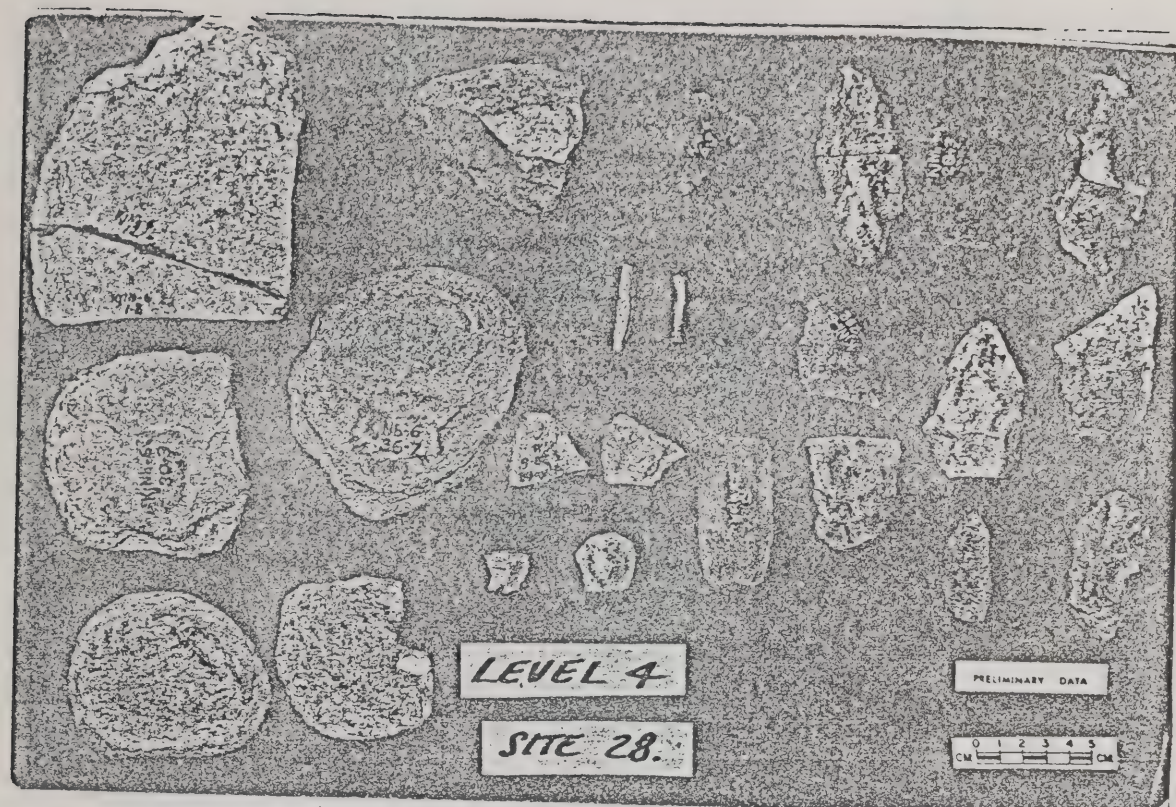








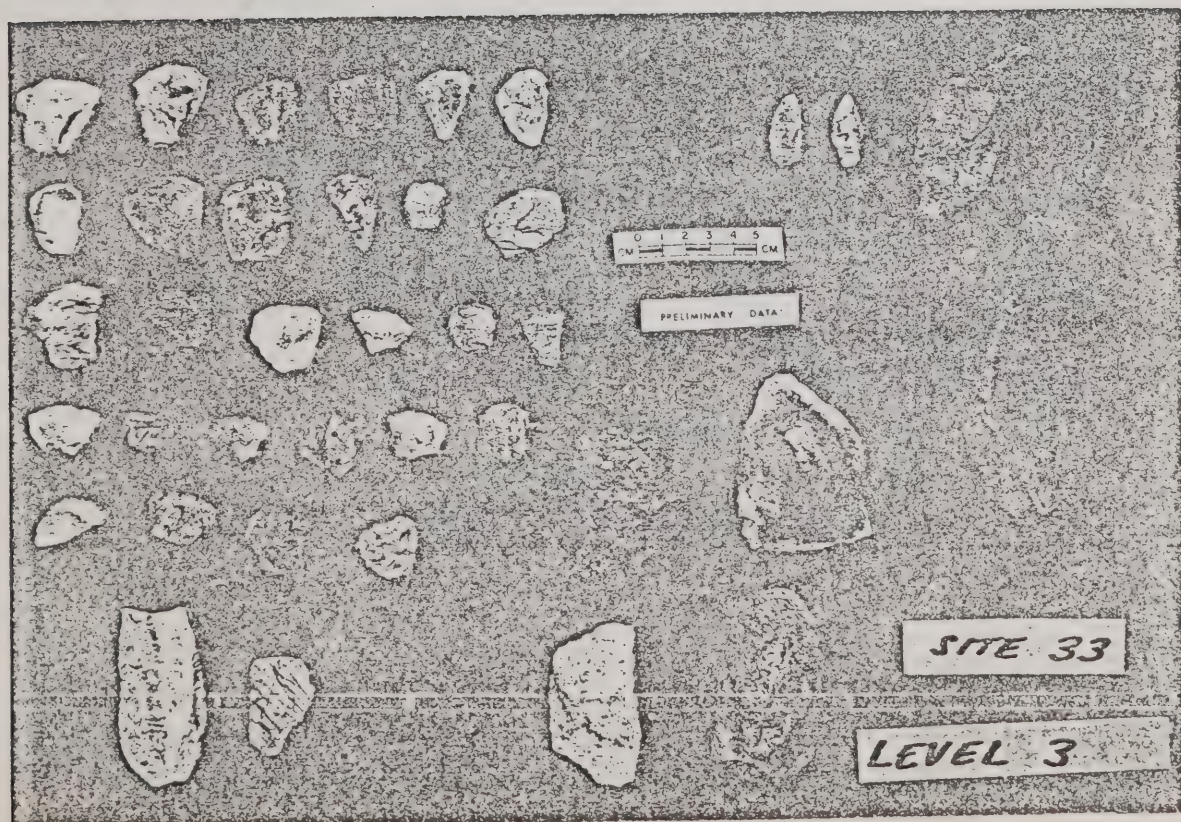




Level 3 should date about 1000 A.D. and was the richest level artifactually. It included a predominance of large and small bifacial knives of variable workmanship (some are preforms), choppers, hammerstones, bladelike flakes and cores, keeled quartzite bifaces, blade endscrapers and small keeled chert endscrapers. Artifacts that carry through to Level 4 include incipient-stemmed, lanceolate and fishtailed points; large and small quartzite cores, large and small tabular endscrapers, sidescrapers of quartzite and flake endscrapers.

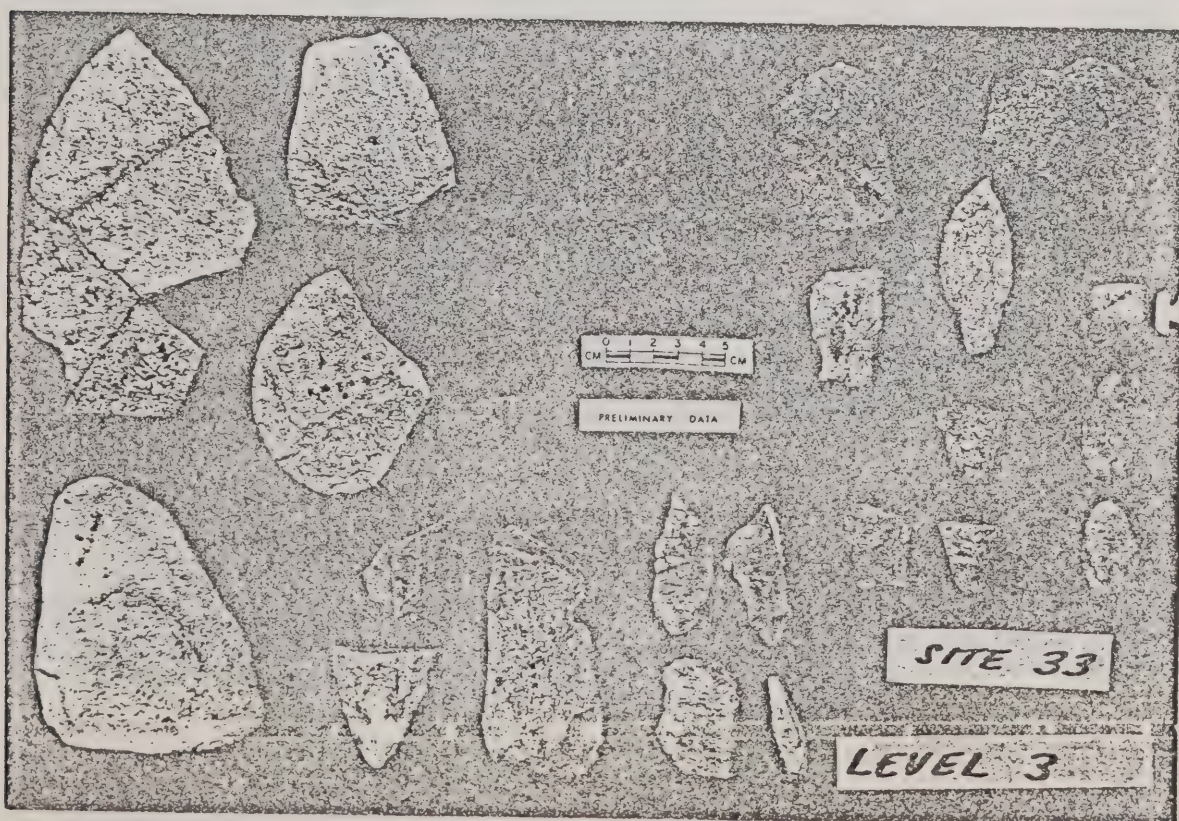






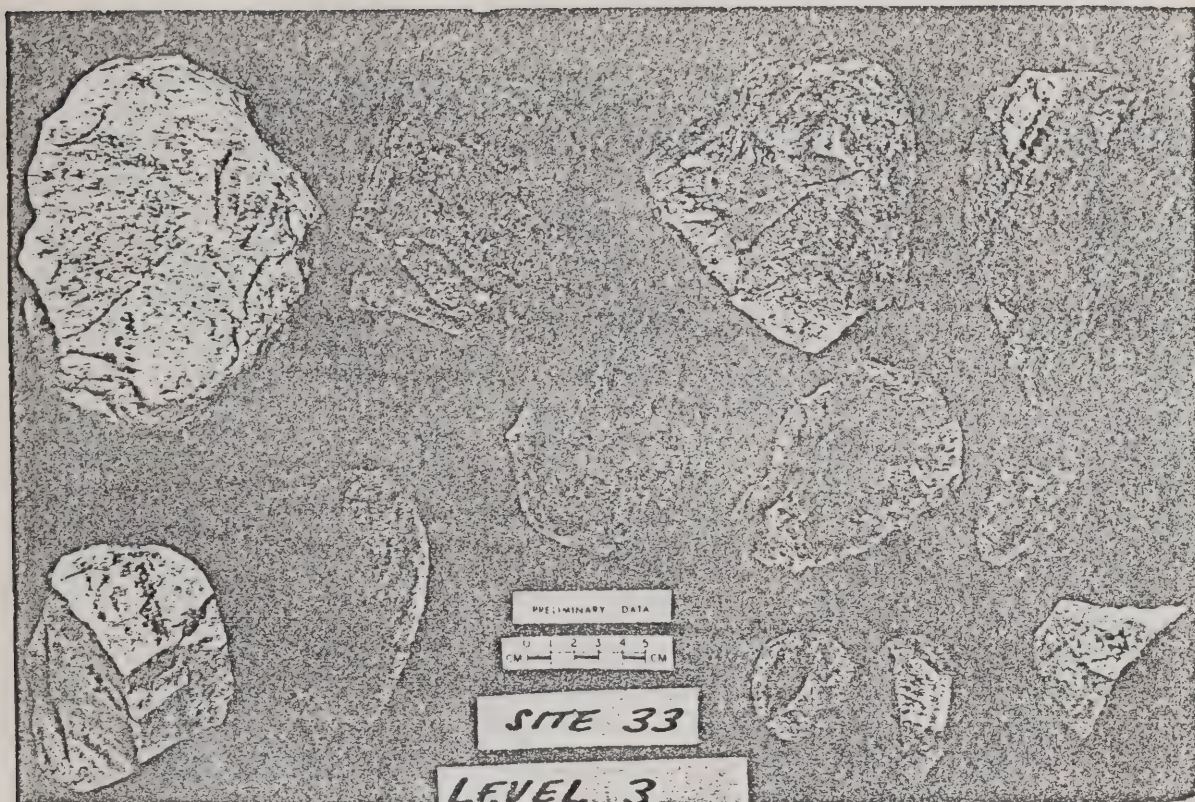


















Note: Items marked "K" in the Level 3 photographs belong with the Thelon Level artifacts. They were incorrectly photographed with Level 3 materials.





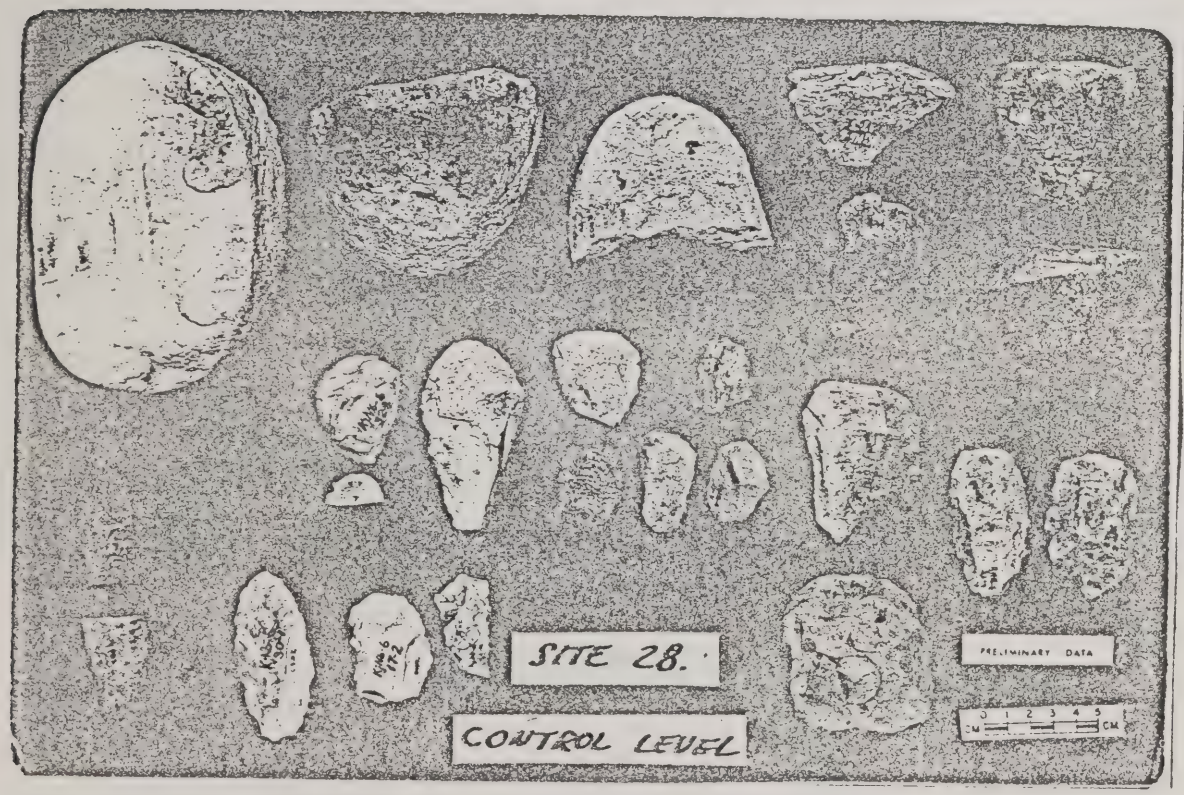
Levels 1-2 are difficult to separate in some areas and are interpreted as identical cultural debris separated by only a few years. Dated at 1480 B.P.  $\pm$  95 (I-5333) and 1450 B.P.  $\pm$  95 (I-5334) respectively in KJNb-6, they contain few artifactual materials. Continuing into Level 3 are tool-thos, chert and quartzite cores, hammerstones, quartzite bifaces, large quartzite sidescrapers, large quartzite keeled sidescraper, large and small tabular endscrapers, and blade-like flakes. Additional artifacts include fine quartzite lunate knives and endscrapers with square-sided working edge (plan view) or unifacial knives. Smaller tool inventory may reflect short seasonal occupation, a small group of hunters, non-preservation of bone tools, or a combination. Black spruce (Picea mariana) within a thick vegetative mat, indicates the presence of boreal forest during occupation periods.







The Control Level in the geological trench of KjnNb-6, dated at 395 A.D.  $\pm$  90 (I-5977) , contained many of the quartzite tools found in Level 3 as well as a tool edge-grinder. Although found separated from the main stratigraphic sequence by a fossil ice wedge, it bears greatest resemblances with Levels 1-2 but may precede the latter.





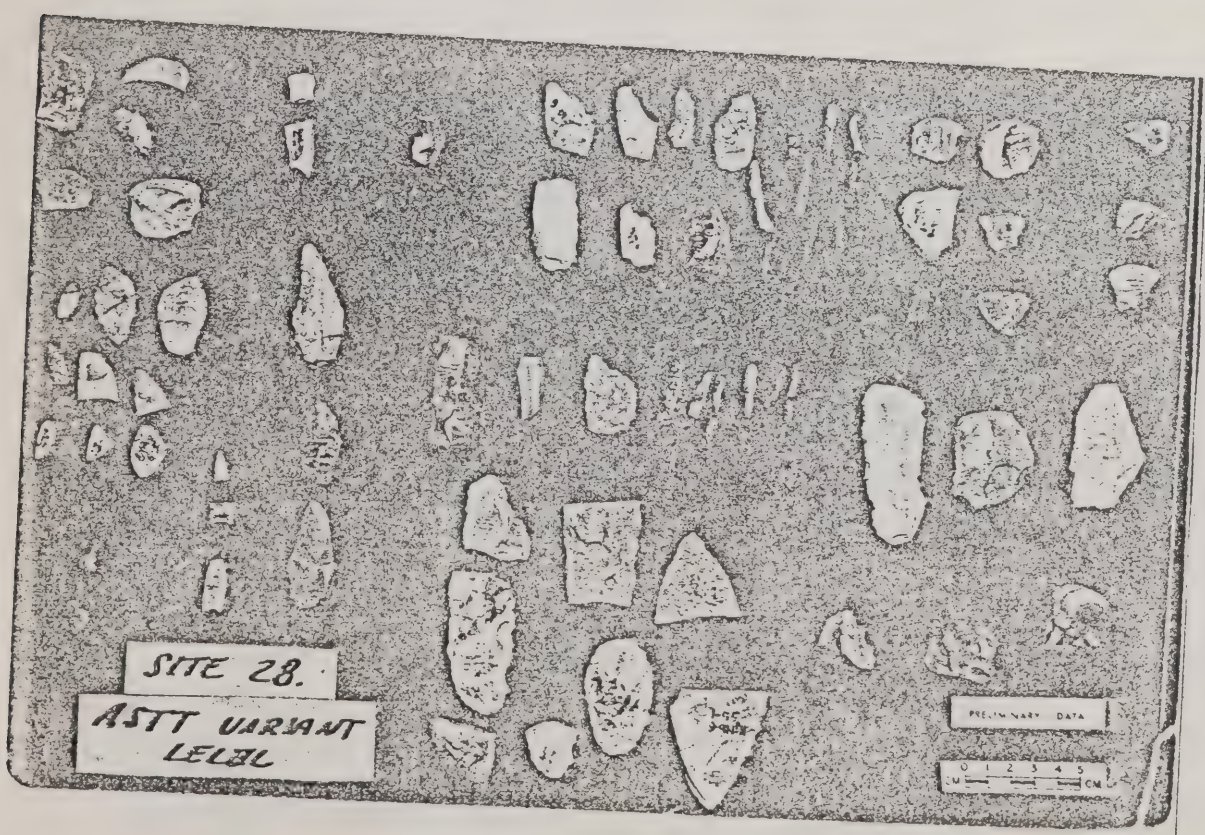
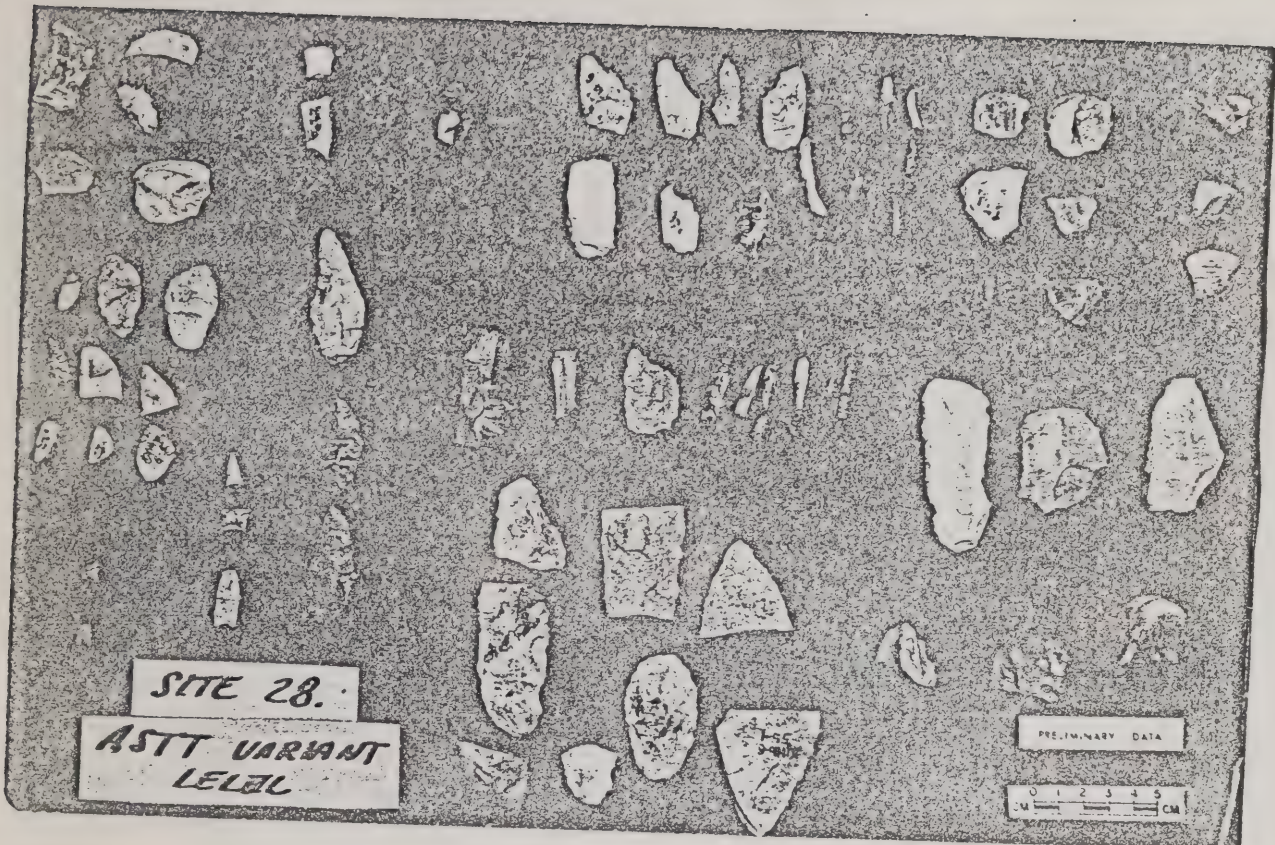


The Arctic Small Tool Tradition Variant Level, dated at 890 B.C.

± 95 (I-5975), 940 B.C. ± 125 (S-632), and 1210 B.C. ± 95 (I-5978), bears close resemblances to Arctic Small Tool Tradition (A.S.T.T.) materials from Buchanan, Menez and Uminga Sites on Victoria and Banks Islands. Fewer affinities exist between the Thelon sites and the A.S.T.T. sites of Noble and Harp in the western Barrenlands. This level represents a distinct break in artifactual continuity between the bottommost level, Thelon, and Levels 1-2. Tools include tabular, cuboid, and amorphous microcores of chert and quartz, with corresponding microblades, angle burins with primary and secondary unifacial and bifacial spalls, chert knives, side-notched knives or scrapers, hafted lunate knives, diamond-shaped knives or points with flattened base, small copper and chert ulus, small concave-based A.S.T.T. points, burin blanks?, large hammerstone, wedges, spokeshave, miscellaneous quartzite bifacial knives two to six inches long, large quartzite unifacial sidescrapers about four inches long with abrupt retouch along both sides, large platelike sandstone pallets and semi-lunar sideblades up to one and a half inches long. In several regions of KJNb-6 the A.S.T.T. Variant Level is tribanded with separations between one half to one inch of sterile sand. Attempts at delineating forestation during this occupation is exemplified in a thin vegetative mat containing an larch cone (Larix decidua).

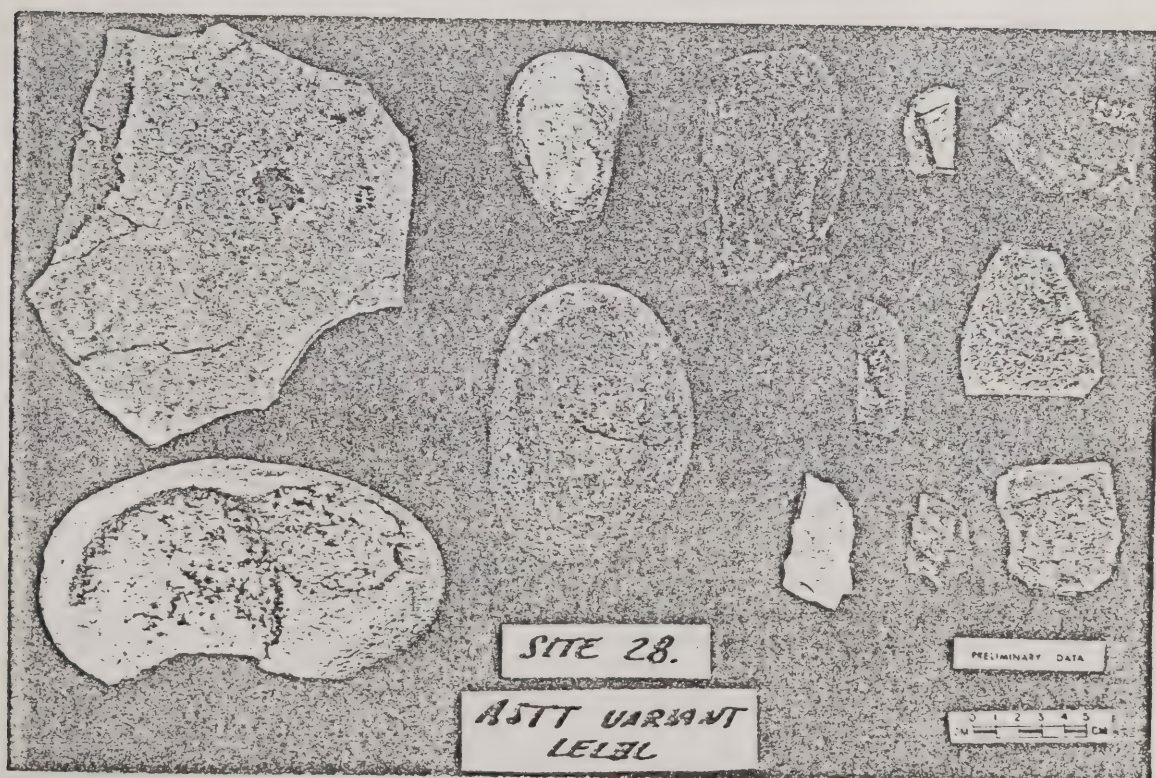
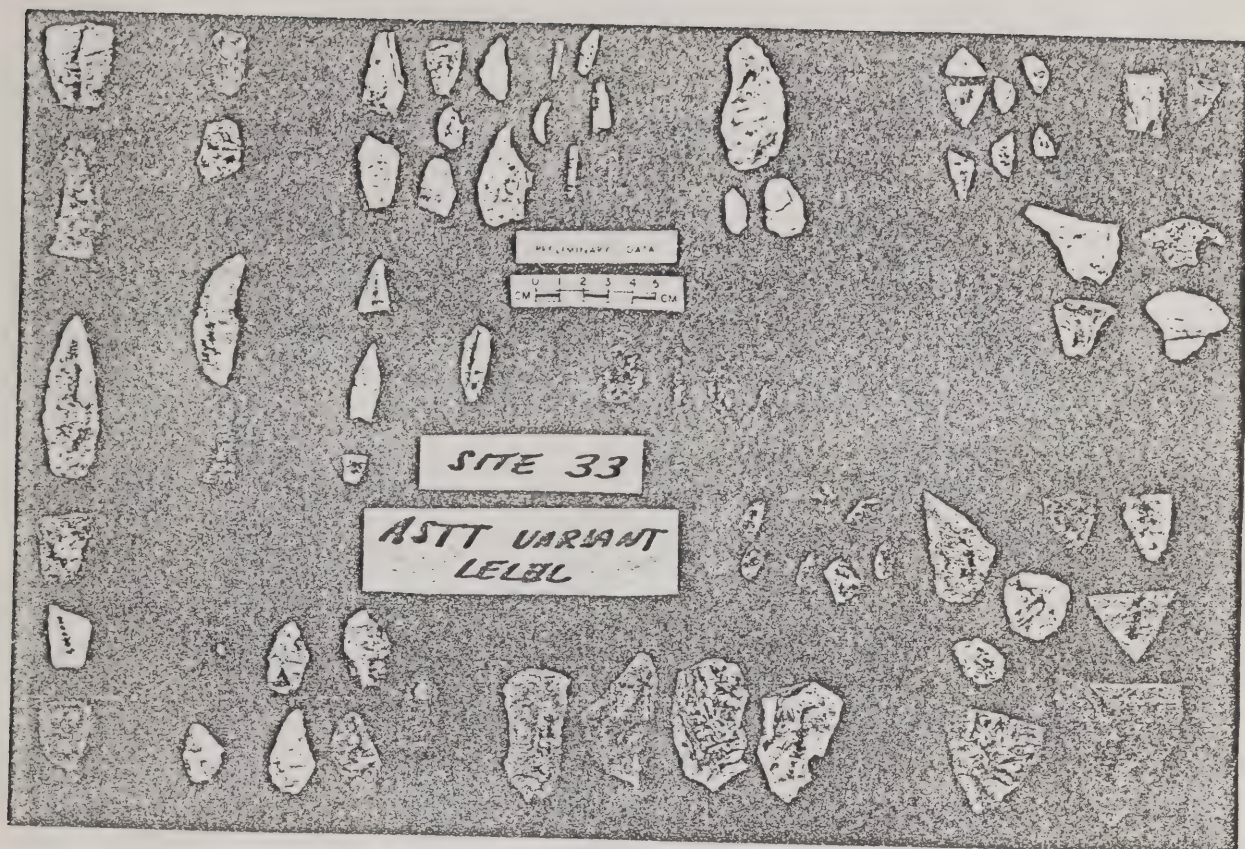














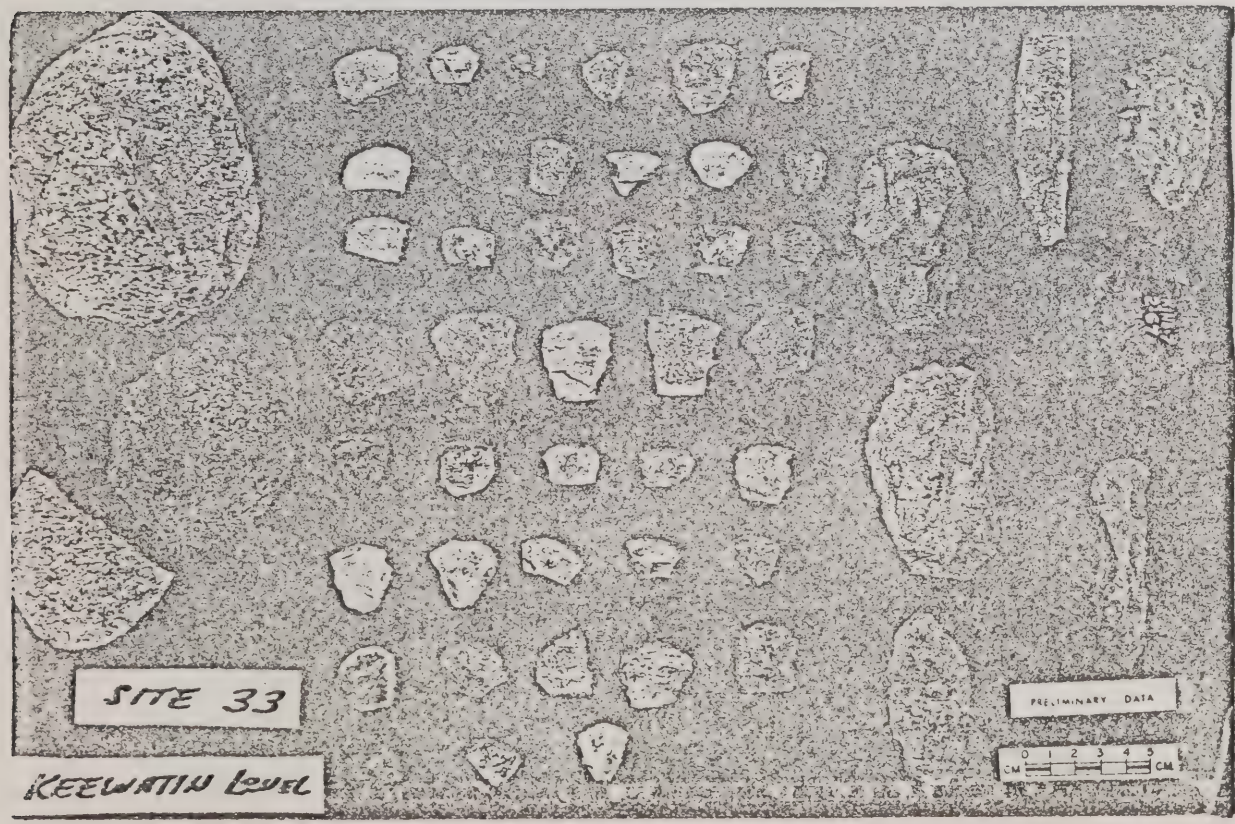
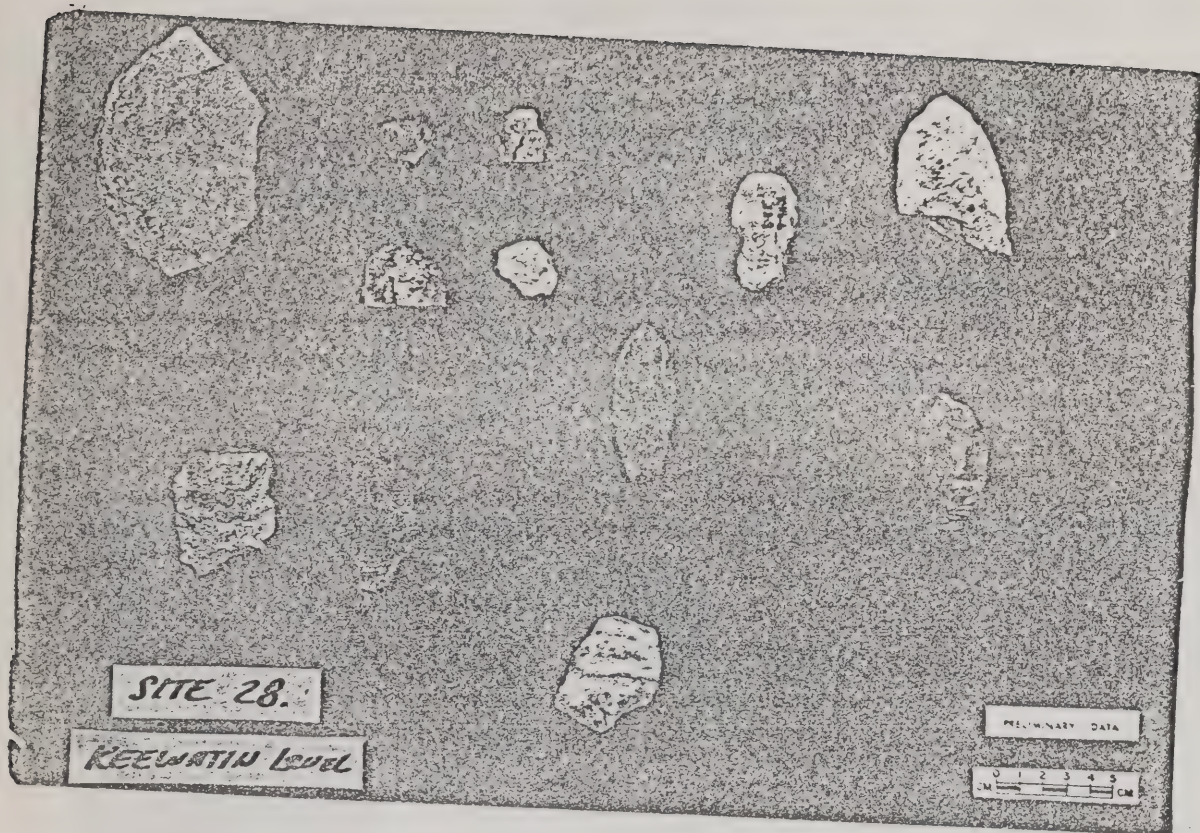


The bottommost Thelon Level, has produced one date so far, of 2564 B.C.  $\pm$  140 (I-5976) in KjmB-6. Tool continuities with Levels 1-2 include tci-thos, well-executed quartzite bifaces, large quartzite sidescrapers, tabular endscrapers and bladelike tools including a blade endscraper. New tools include small keeled endscrapers; three tapered-stem, a small side-notched and convex-based, and fish-tailed projectile points; and ten Agate Basin points. Most of the Agate Basin points have basal and side-grinding. These, in conjunction with large concentrations of small quartzite tabular endscrapers, a variety of well made bifacial knives, prismatic blades, tapered-stem points and tci-thos opt for relations with Harp's Complex B with its associated Agate Basin-like burinated Keewatin points as the main dissimilarity. Little evidence of burination occurs in the upper Thelon sites. The general quality of workmanship is superior to Levels 1-5.







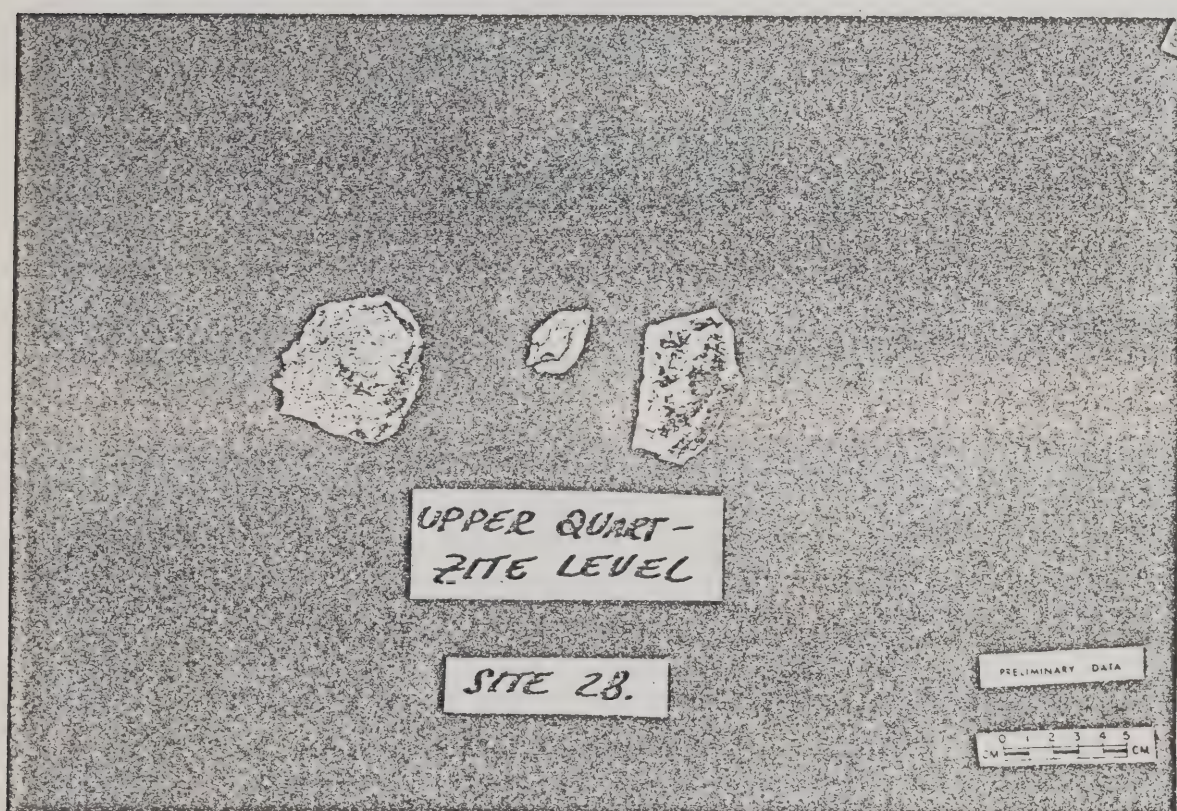


referred to in text as Thelon Level



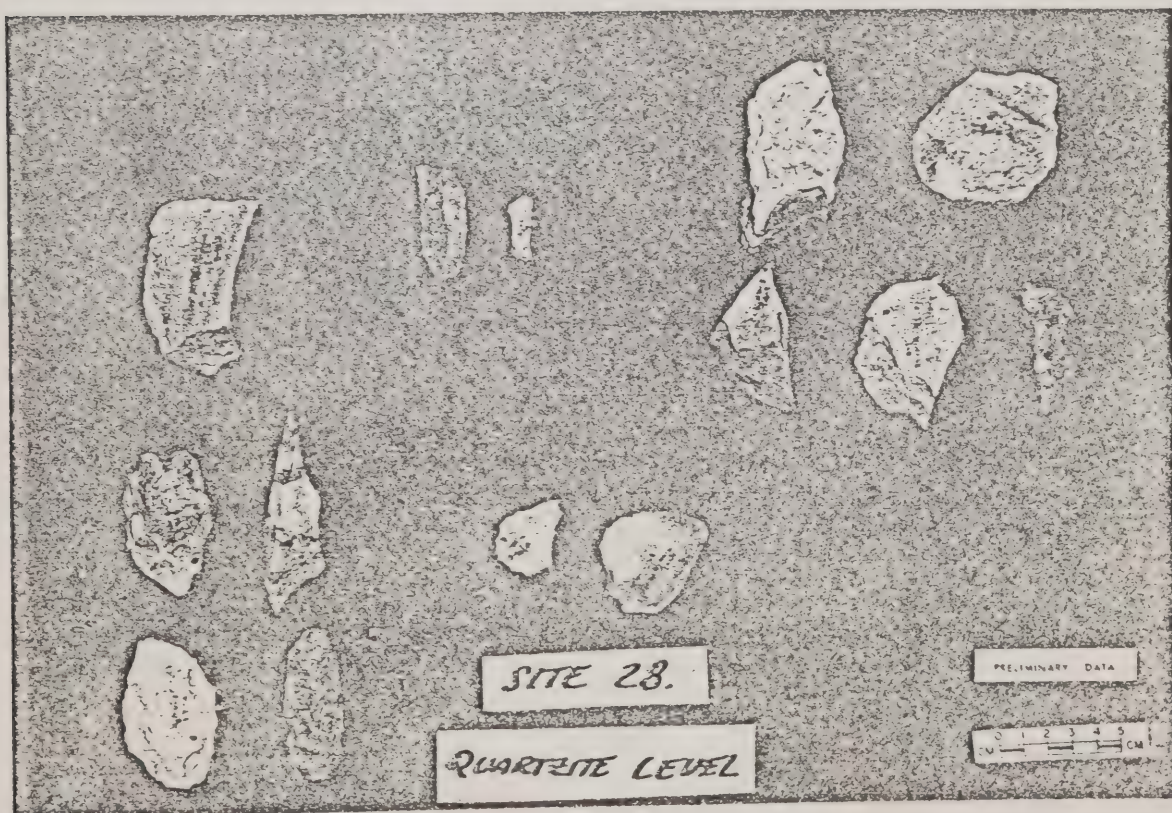
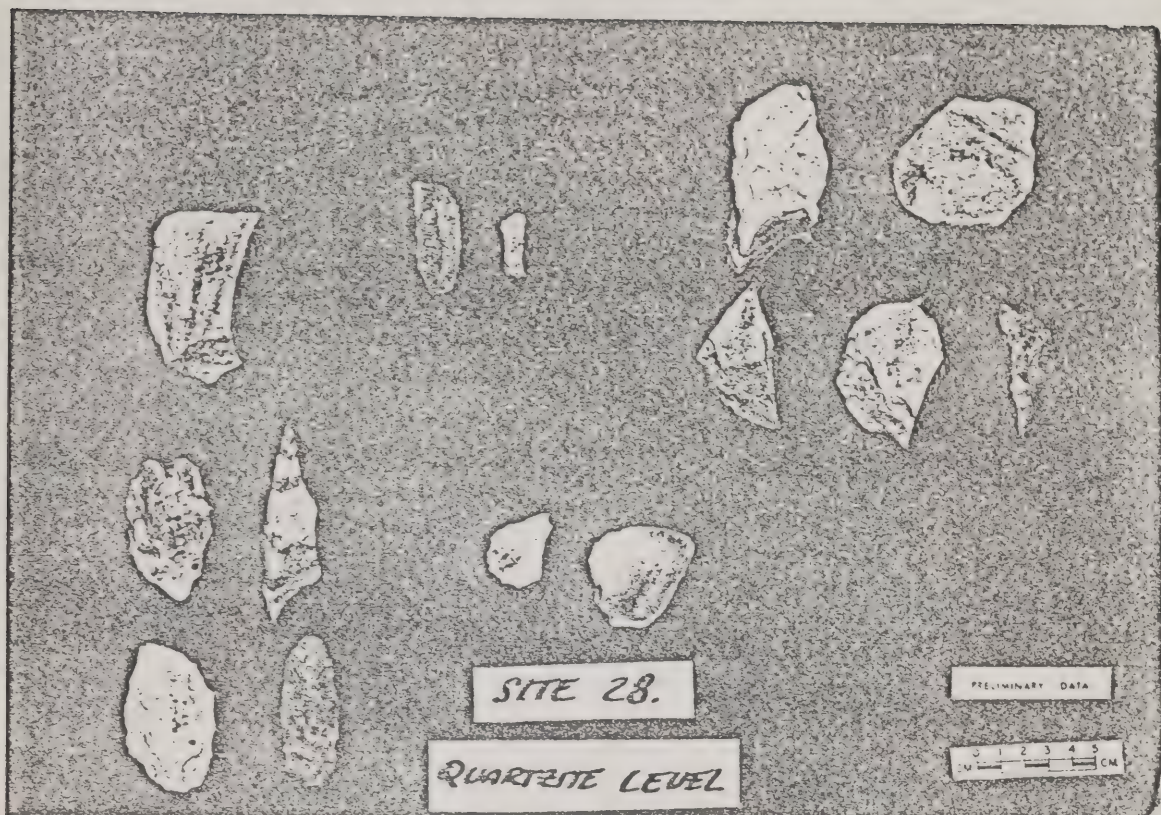


Upper quartzite and quartzite levels of Trench B, Site KJNb-6, are in the process of being dated and analyzed and have not as yet been incorporated into the above chronology. They tentatively appear to be dated within the last one thousand years.













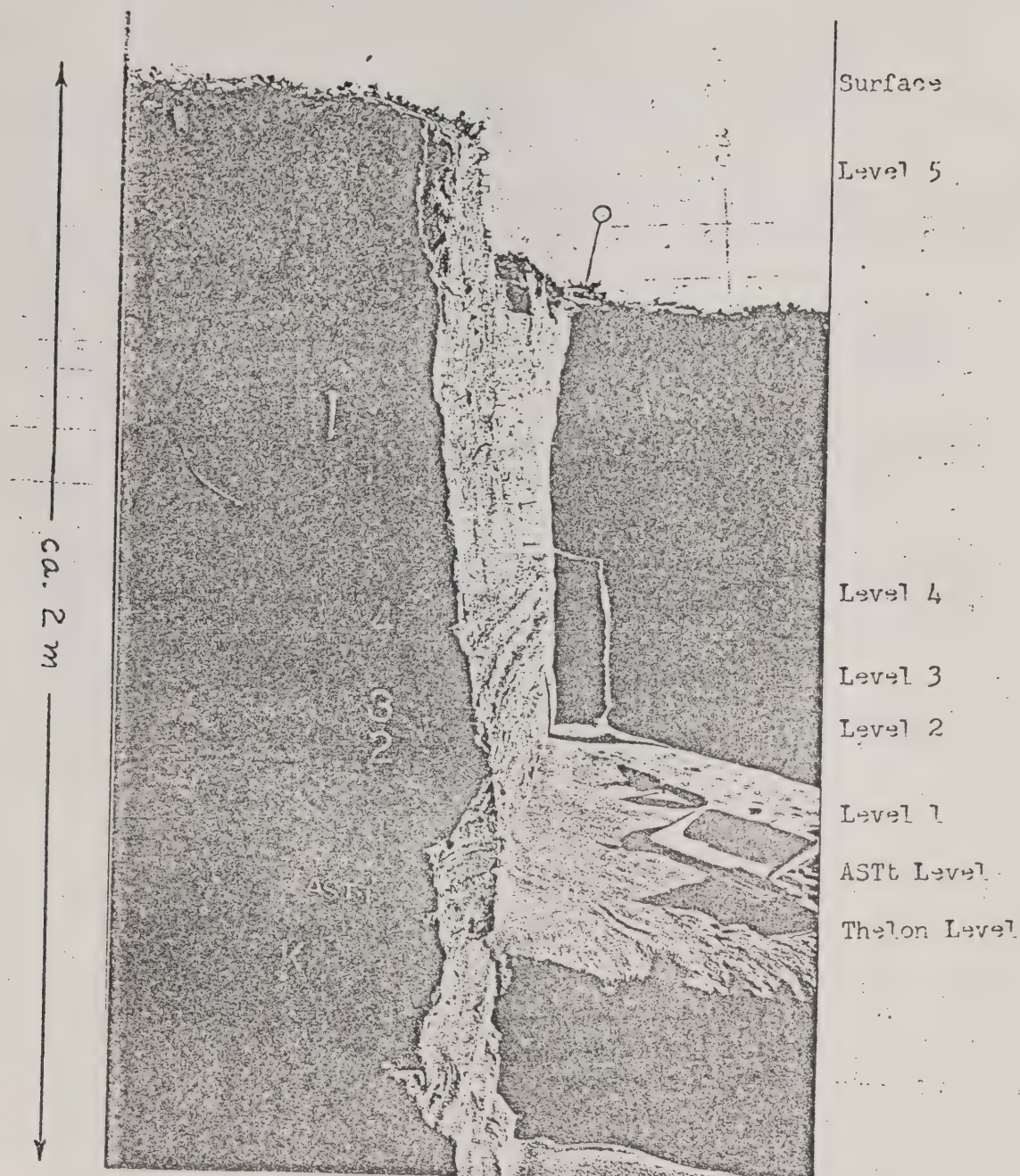
Artifacts from KjNb-3 and KjNb-5 have not been analyzed but the following radiocarbon samples have been dated. The Basal Level of two levels of KjNb-3 dates from 20 B.C.  $\pm$  120 (S-631). Level 1, the single component of KjNb-5, is dated at 1175 A.D.  $\pm$  105 (S-630) and may be analogous to Level 3 of KjNb-6 and KjNb-7.

The large number of artifactual continuities continuing from the Basal Level of KjNb-3 to Level 5 of KjNb-6, the ecological similarities exemplified in the plant fossils and the thickness of the vegetative mats, and the co-occurrence of the artifactual assemblages at several major water crossings for caribou suggests the expected conservative nature in the hunting patterns involved in Chipewyan cultural evolution.





Stratigraphic Sequence of KjNb-6 as shown in the northwest corner of 8 South 2 East square(pit).



The surface comprises a vegetative mat consisting of woody shrubs, aspen and spruce trees, and grasses.

Level 5 was not found in this square, but is depicted to indicate its relative position in KjNb-6 and KjNb-7. It should date to the late pre-historic (ca. 2-300 B.P.).

Level 4 dates at  $1450 \pm 95$  A.D. (I-5335).

Level 3 dates have not been returned. It should date ca. 1000 B.P.

Level 2 dated at  $500 \pm 95$  A.D. (I-5334).

Level 1 dates at  $470 \pm 95$  A.D. (I-5333).

ASTt variant Level dates about 1000 B.C. (890 $\pm$ 95; 940 $\pm$ 125; 1210 $\pm$ 95/I-5975; S-632 and I-5978, respectively).

Thelon Level dates at  $2564 \pm 140$  B.C. (I-5976).

(the cultural levels are separated by sterile glaciolacustrine sand and relict vegetative bands. The ASTt variant Level comprises 3 bands in certain areas of KjNb-6. Basement sediments are sterile, partially-frozen, orange sand with clay inclusions).



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A Compilation of Archaeological Sites Found in the Thelon Game Sanctuary  
Upper Thelon River Archaeological Project  
1970-1971  
(amended March 9, 1972)

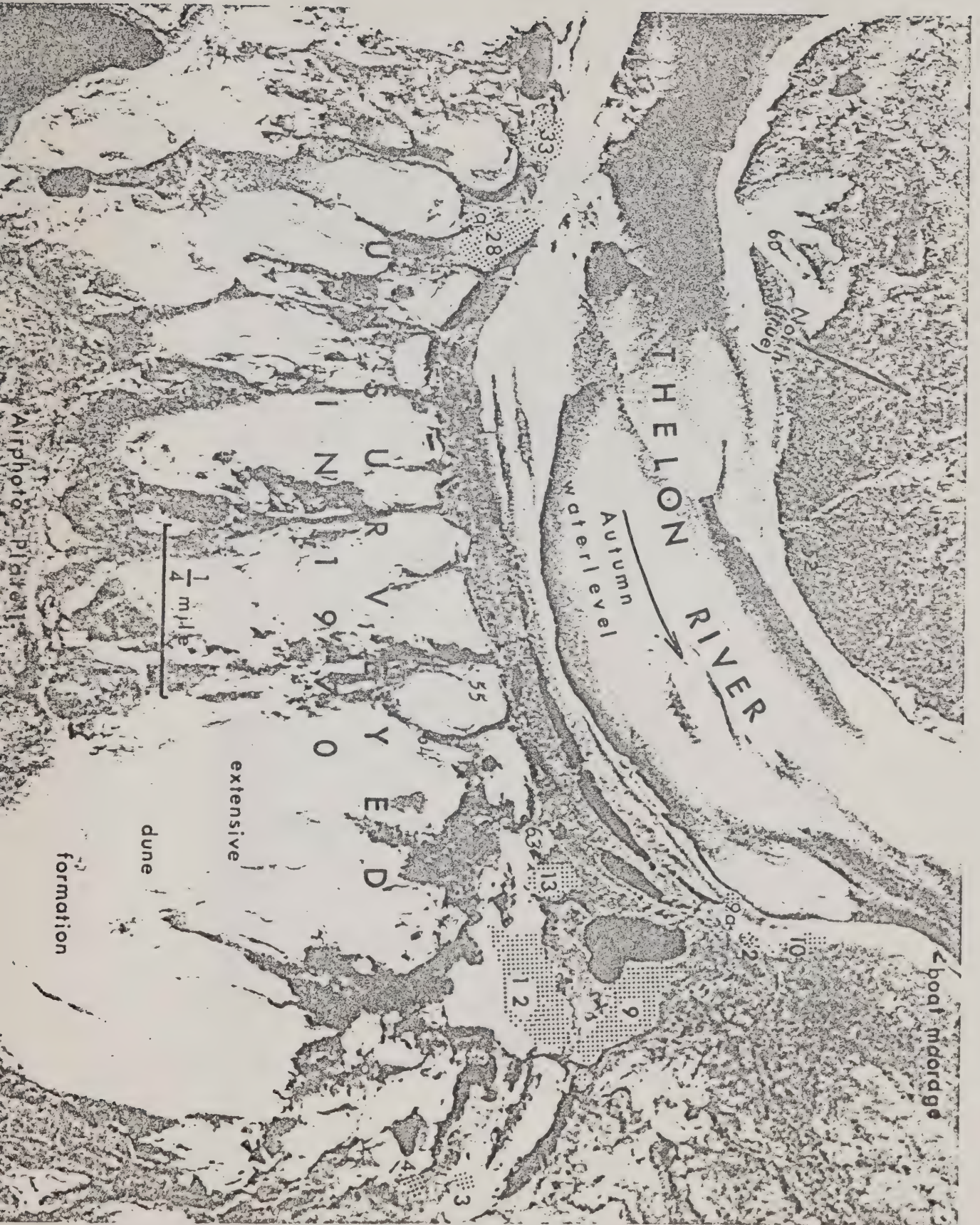
Season No.	Borden Designation	Site Name	Coordinates	Number of Artifacts	Number of Bags of flakes *
1	KjNb-1	Lower Clarke	63°38'30"N.; 104°25'30"W.	4	1
2	KkNb-1	Groarke	63°41' N.; 104°25' W.	1	0
3	KkNb-2	Initiator	63°40' N.; 104°26'15"W.	1	1
4	KjNb-2	Esker	63°39'45"N.; 104°26'15"W.	3	0
5	KkNb-3	Narrows	63°11'15"N.; 104°24' W.	746	85
6	KkNb-4	Steel Lake Low	63°43'50"N.; 104°31'50"W.	2	0
7	KkNb-5	Steel Lake High	63°43'55"N.; 104°32'45"W.	2	1 flake
8	KkNb-6	Fish Hole	63°42'16"N.; 104°24'45"W.	93	2
9	KjNb-3	Long Blowout	63°40' N.; 104°25'45"W.	424 s, 20 e	167 s, 15 e
10	KkNb-7	Charlotte	63°40'20"N.; 104°27' W.	46	6
11	KkNb-8	West Ridge	63°42' N.; 104°27' W.	5	1
12	KjNb-4	Circle	63°39'55"N.; 104°27' W.	57	1
13	KjNb-5	Meyer	63°39'52"N.; 104°27'10"W.	311 s, 32 e	66 s, 1 e
14	KiNb-1	Yorga	63°20'30"N.; 104°35' W.	2	1
15	KiNb-2	Firth	63°20'40"N.; 104°36'45"W.	2	1
16	KiNb-3	Midway	63°20'50"N.; 104°37'55"W.	3	1
17	KiNb-1	Eyeberry Esker	63°21'15"N.; 104°41' W.	4	1
18	KiLu-1	Highland Lake	63°20'45"N.; 102°59'20"W.	2	0
19	KiNb-1	North Esker	63°52' N.; 104°31'30"W.	36	3
20	KjNd-2	Hoare Lake	63°37'40"N.; 105°3'45"W.	1	1 flake
21	KkNb-1	Dickson Canyon	63°44' 3"N.; 104°43'34"W.	4	0
22	KkNb-9	Ice Raft	63°44' 3"N.; 104°22'40"W.	1	1
23	KkNb-10	East Narrows	63°44'30"N.; 104°23'10"W.	112	8
24	KkNb-11	Midge	63°44'20"N.; 104°22' W.	175 r	9 r
25	KkNa-9	Grassy Island	63°47'25"N.; 104°12'45"W.	16 r	1 r
26	KkNa-2	Double Dune	63°46'50"N.; 104°13'40"W.	127	8
27	KkNa-3	Meyer Ridge	63°47'25"N.; 104°14'15"W.	13	0
28	KjNb-6	Junction	63°39'30"N.; 104°28'20"W.	1932 s, 595 e	133 s 222e
29	KkNb-12	Gas Cache	63°44'30"N.; 104°24'45"W.	r	r
30	KkNb-13	Steel Lake East	63°43'30"N.; 104°32' W.	1	1
31	KkNb-14	Dennis	63°44' N.; 104°33' W.	0	1
32	KkNb-15	Greene	63°44' 5"N.; 104°33'30"W.	1	1
33	KjNb-7	Duc	63°39'34"N.; 104°28'30"W.	166 s, 595 e	2 s, 48 e
34	LaLx-1	Hornby Point	64° 2'12"N.; 103°50'25"W.	2	1
35	LaLx-2	Big Bend	64° 0'50"N.; 103°54'35"W.	0	1
36	LaLx-3	Upper Big Bend	64° 0'45"N.; 103°53'30"W.	8	1
37	KiLx-1	Constriction	63°58'22"N.; 103°53'15"W.	0	1
38	KiNa-1	Copper Awl	63°51'20"N.; 104° 4'43"W.	174	1
39	KkNa-4	Sandy Island	63°43' N.; 104°14' W.	49	1
40	KkNa-5	Drumlin	63°47'45"N.; 104°12'35"W.	143	1
41	KkNa-6	Double	63°47'30"N.; 104°11'20"W.	44	1
42	KkNa-7	Pleistocene Island	63°46'40"N.; 104°11'20"W.	2	0
43	KkNa-8	Site 27 Extension	63°47'25"N.; 104°13'55"W.	r	r
44	LaLx-4	Hornby Cabin	64° 2'27"N.; 103°52' W.	2	1
45	KkNb-16	Hilltop	63°42'10"N.; 104°23'10"W.	1	0
46	KkNb-17	Rock Cairn	63°41'30"N.; 104°22' W.	0	0
47	KjNb-11	Thelon Shelf	63°37'20"N.; 104°31'40"W.	23	1
48	KjNb-12	Thelon Junction	63°36'40"N.; 104°31'40"W.	5	1
49	KjNb-8	U-Blowout	63°36'40"N.; 104°33'40"W.	7	1
50	KjNb-9	Radford	63°33'50"N.; 104°33' W.	0	1
51	KjNb-10	Street	63°37'30"N.; 104°35'40"W.	5	1
52	KjNb-13	Janes Blowout	63°39'50"N.; 104°30'20"W.	11	1
53	KjNb-14	Hanbury Point	63°32'30"N.; 104°32'30"W.	2	1
54	KjNb-15	Heather	63°33'40"N.; 104°26' W.	1	1
55	KjNb-16	Baby Dune	63°39'40"N.; 104°27'40"W.	15	0
56	KjNb-17	Hanbury Junction	63°37'15"N.; 104°33'40"W.	2	1
57	KjNb-22	Radford River	63°33'40"N.; 104°40' W.	1	0
58	KkNb-18	Grassy Island Ridge	63°47' N.; 104°22'30"W.	26	0
59	KkNb-19	Kettle Outcrop	63°47'40"N.; 104°24' W.	10	1
60	KjNb-18	Bickel Beach	63°39' N.; 104°32'20"W.	22	0
61	KjNb-19	Junction Lookout	63°33'12"N.; 104°39'40"W.	6	1
62	LaLx-5	True Hornby Point	64° 2'20"N.; 103°51' W.	6	2
63	KjNb-20	Hanston	63°39'12"N.; 104°27'20"W.	99 s, 5 e	2 e
64	KjNb-21	Papa Dune	63°39'30"N.; 104°27'20"W.	3	0
65	KkNa-10	Bear Growl Ridge	63°48'15"N.; 104°17'15"W.	2	0
66	KkNb-20	Burger Blowout	63°45'55"N.; 104°22'15"W.	8	0
67	KkNb-21	N-Y Portage	63°46' N.; 104°20' W.	10	0
68	KjNb-22	Bluff	63°39' N.; 104°23'45"W.	7	0

## Key:

\* Bags of flakes were treated like artifacts in the 1970 Master Catalogue. Each bag is numbered and provenience noted on sites where polar coordinate method of locating artifacts is used.  
s Surface collected  
e Excavated  
r Reserved, i.e., artifacts not collected in the two field seasons or only a sample taken.







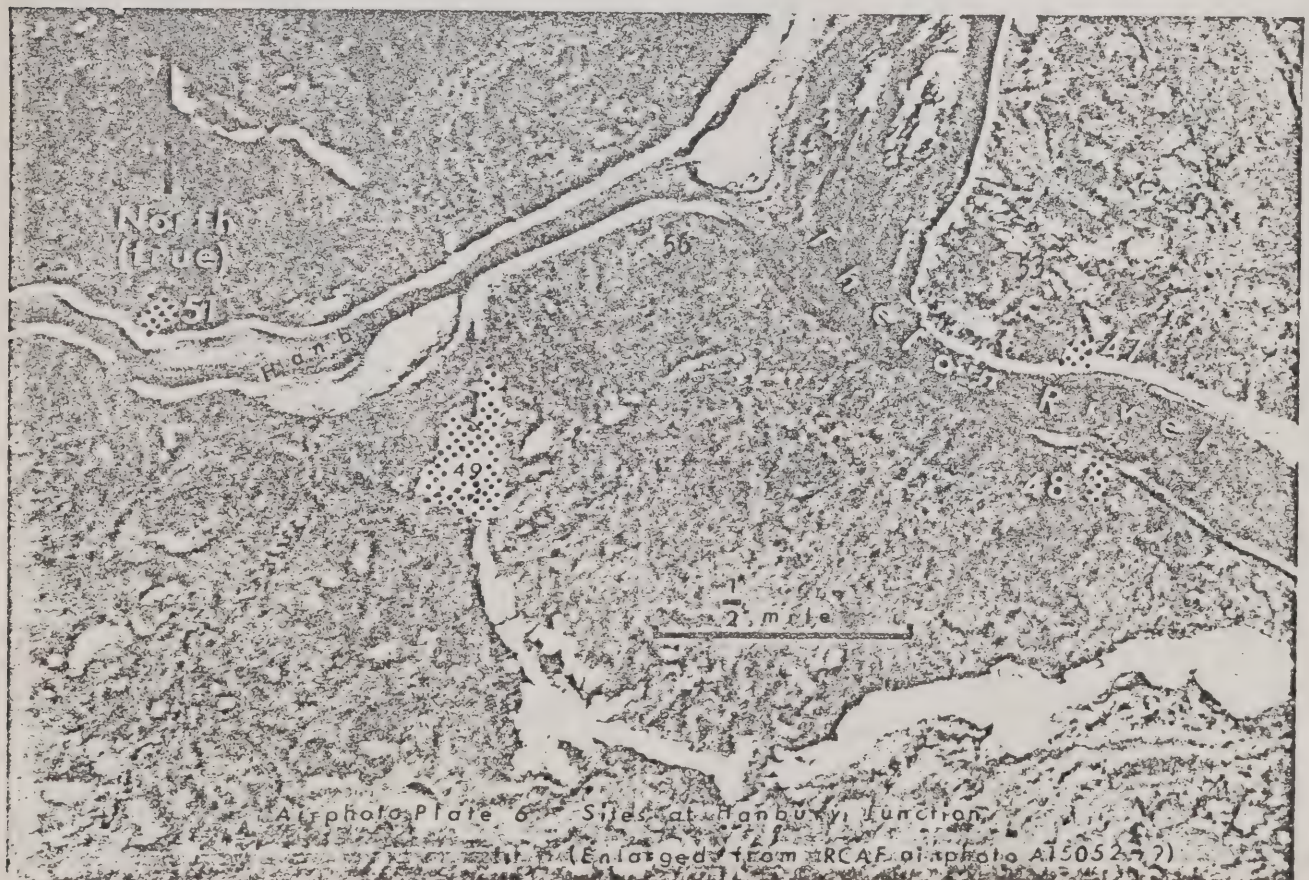






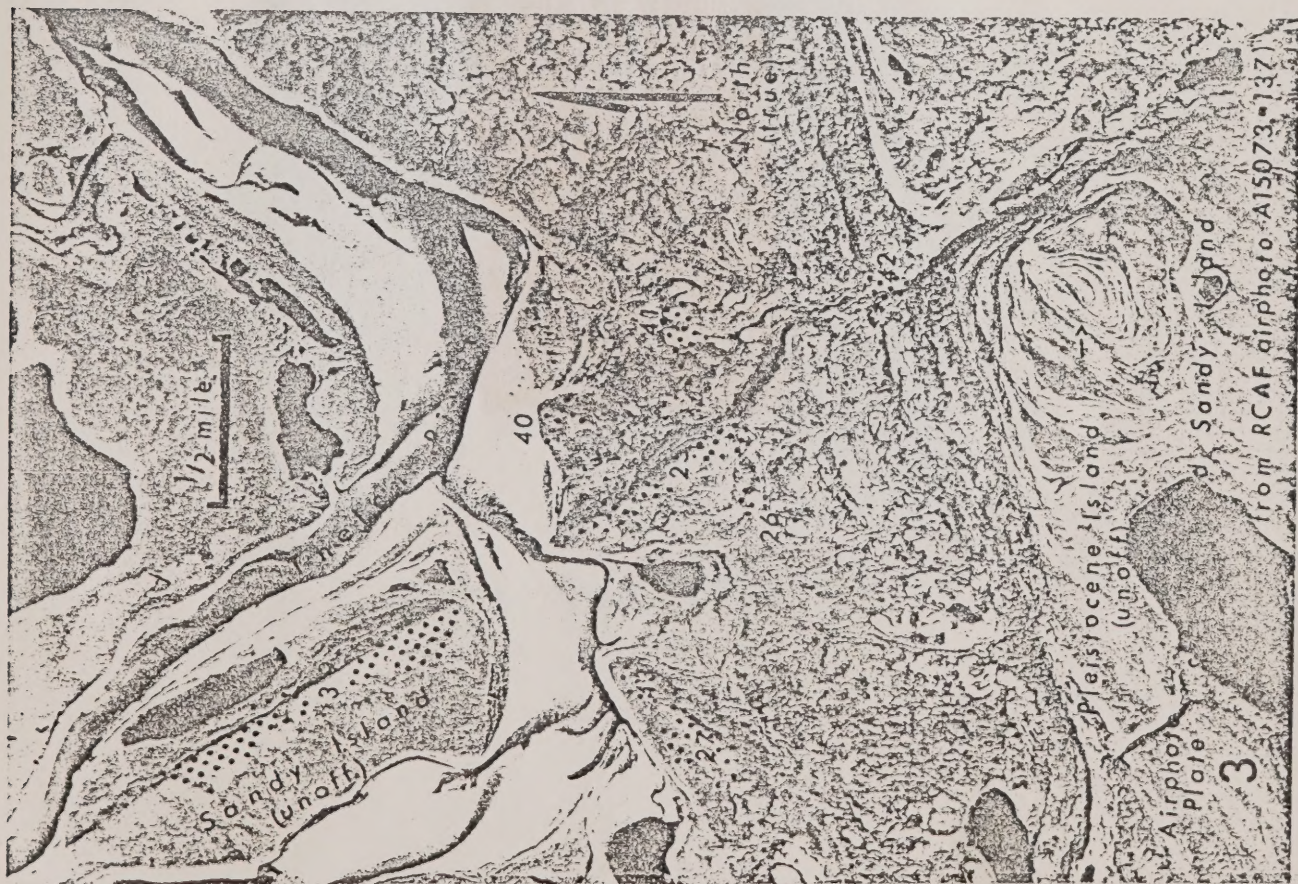




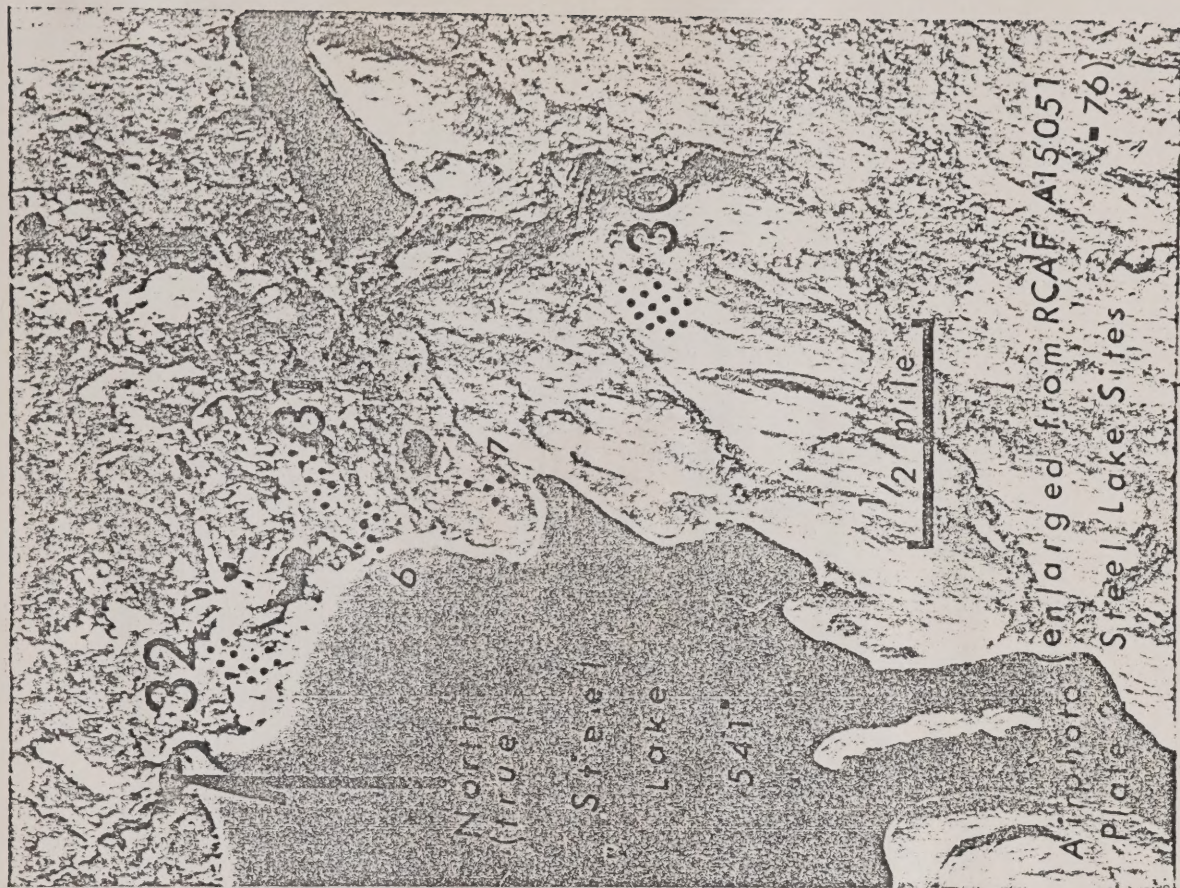








from RCAF airphoto A15073-137



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Steel Lake Sites



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